

## Abstract

The invention has as an object to provide a traffic information providing system capable of compressing traffic information represented at an arbitrary detail level to a data volume corresponding to a different communications environment. The traffic information providing system includes: traffic information providing apparatus including means for generating sampling data from traffic information represented by a function of distance from a reference position on a road or a function of time and means for performing discrete wavelet transform on the sampling data to convert the traffic information to scaling coefficients and wavelet coefficients; and traffic information utilization apparatus for performing inverse wavelet transform on the scaling coefficients and wavelet coefficients received from the traffic information providing apparatus to restore the traffic information. The receiving party can restore coarse or minute information within the range of the received information even in case the traffic information providing apparatus has provided scaling coefficients and wavelet coefficients without considering the communications environment and reception state.